ACCURACY (ACC)
A measure of the precision with which genetic merit is predicted. Accuracy ranges from .01 (low) if no information is available, to .99 (high) if there is a large amount of performance information on the individual and its relatives. It is an expression of the reliability of the EPD. Accuracies indicate the level of confidence that the predicted EPD is near the true genetic potential of that animal. Accuracies are not available at this time.

ACROSS-HERD
Genetic evaluations including data from many herds in the breed. Direct comparisons of EPDs of animals in different herds are valid.

ACTIVE SIRE
A boar that sired a recorded litter in the past 12 months.

ACTIVE SOW
A sow that farrowed in the past 12 months.

ACTIVE YOUNG PIG
A young boar or gilt with postweaning data submitted in the past 12 months.

ADJUSTMENT FACTORS
Equations or constants used to remove non-genetic effects on performance. Breed-specific adjustment factors are used to standardize all data before submission to the genetic evaluation procedure. Number Born Alive (NBA) is adjusted for the parity of the sow. Number Weaned (NW) is adjusted for parity and number after transfer. Litter Weight (LWT) is adjusted to 21 days of age, and further adjusted for parity and number after transfer. Backfat (BF) and Loin Eye Area (LEA) are adjusted to 250 pounds. Days to 250 pounds (Days) is calculated from the animal's age and weight.

BACKFAT (BF)
Backfat thickness measured ultrasonically in inches, adjusted to 250 pounds live weight. Sires or sows with negative (-) EPDs for Backfat will produce pigs that have less backfat at market weight than pigs of parents with average EPDs.

BLUP
Best Linear Unbiased Prediction. A set of statistical qualities that describe the methodology utilized in calculating STAGES genetic evaluations. BLUP utilizes an animal's own record (if available) along with all relatives' records, including ancestors, siblings, and progeny. Thus it takes into account genetic relationships as well as the relative merit of an animal within its contemporary group. The major feature is that evaluations are unbiased.

CONNECTEDNESS

Herds are connected through genetic ties, or through management groups. Unrelated animals can be connected if they are in the same contemporary group. BLUP simultaneously solves for genetic and environmental components, and both forms of connectedness are necessary for proper genetic evaluation.

CONTEMPORARY GROUP, REPRODUCTIVE TRAITS
A group of sows of the same breed that farrow in the same room and have minimal age differences among litters. Optimal reproductive contemporary groups included 6 or more litters born from sows sired by 3 or more sires, with litters born within a 7 day period and weighed at 17-25 days of age. Minimum requirements include at least 2 litters born from sows sired by 2 sires, with litters born within a 30 day period and weighed at 10-35 days of age. STAGES accepts purebred litters as well as crossbred litters from purebred females for the purposes of genetic evaluations; however, purebred and crossbred litters should be in different contemporary groups.

CONTEMPORARY GROUP, POSTWEANING TRAITS
A group of pigs of the same breed and sex that have been raised in the same management group (in the same location and on the same feed). Optimum postweaning contemporary groups include 6 or more litters of pigs sired by at least 3 sires, born within a 7 day period and weighed and scanned at the same time. Minimum requirements include at least 2 litters born within a 30 day period and weighed and scanned at the same time.

DAYS TO 250 POUNDS (DAYS)
Estimated days to reach 250 pounds. An NSIF equation calculates days to 250 pounds from the animal's weight and age. Sires or dams with negative (-) EPD for Days will produce pigs that reach market weight faster than pigs of parents with average EPDs.

EPD
Expected Progeny Difference. The predicted performance of future offspring of an individual, expressed as a deviation from the mean of the base group of animals. EPDs are equal to 1/2 the estimate of the breeding value, and are reported in the units of measure of the trait (e.g., pounds, inches, square inches, days). They are adjusted for the differing amounts of information available for each animal. BLUP procedures are utilized, ranking the animals according to their genetic merit and allowing direct comparison of animals within a breed. Whether + or - values are more desired depends on the trait (negative EPD are desired for Days and Backfat; positive EPD are desired for Number Born Alive and Litter Weight).

FEED/POUND OF GAIN
Pounds of feed consumed per pound of gain. An EPD for Feed/Gain is calculated from the EPDs for Days to 250 Pounds and Pounds of Lean. This EPD is not reported, but is used in the calculation of indexes.

FULL-SIB

A full brother or sister; animals with the same parents.

GENETIC BASE
The group of animals that is used as a point of reference for the genetic evaluation. The average EPD for this population is 0, and the average index is 100. All EPDs are expressed as deviations from this group.

GENETIC BASE YEAR
The 12-month time period in which the genetic base animals were born. With a rolling genetic base year, this 12-month span changes on a daily basis. STAGES uses a 4-years-prior genetic base year for all reproductive traits, and a 3-years-prior genetic base year for all postweaning traits. As an example, using January 15, 1999 as today's date, the genetic base year for reproductive traits would be January 15, 1995 plus or minus6 months, or include all animals born from July 15, 1994 to July 14, 1995. The genetic base year for postweaning traits would include all animals born from July 15, 1995 to July 14, 1996. The individuals born during this time frame would have average EPDs of 0 and average indexes of 100. All other EPDs are expressed as a deviation from this group.

GENETIC TIES
Herds are genetically tied if animals in the herds are related. For example, if both herds used the same sire, or if a sire in one herd was related to a sire in a second herd through a common ancestor, the two herds would be genetically tied.

HALF-SIB
A half brother or sister; animals with the same sire or the same dam.

INDEX
See "Selection Index".

LITTER WEIGHT (LWT)
Litter weight adjusted to 21 days of age. Breed-specific adjustment factors are used to adjust for parity, number born alive, number after transfer, and age of weaning. Daughters of sires with positive (+) EPD for LWT will produce heavier litters than average EPD females. For nonparent animals, EPDs for LWT are estimated as parental averages.

LOIN EYE AREA (LEA)
Loin Eye Area measurement in square inches, adjusted to 250 pounds live weight. The EPD for LEA is not reported, but is used in the calculation of an EPD for Pounds of Lean (Lbs.).

MATERNAL LINE INDEX (MLI)
A bio-economic index for seedstock which are used to produce replacement gilts. MLI weights EPDs for both terminal and maternal traits relative to their economic values in a crossbreeding program, placing twice as much emphasis on reproductive traits as on postweaning traits.

MATERNAL TRAITS
See “Reproductive Traits”.

NSIF
National Swine Improvement Federation. A federation of organizations interested in development of accurate and uniform genetic improvement programs. NSIF provides recommendations for performance testing procedures. STAGES utilizes NSIF equations to standardize postweaning performance.

NSIF ADJUSTMENT FACTORS
Equations or constants used to remove nongenetic effects on performance. STAGES utilizes NSIF equations for adjustment of backfat thickness to 250 pounds, adjustment of loin eye area to 250 pounds, and calculation of days to 250 pounds.

NUMBER AFTER TRANSFER (NAT)
The number of pigs the sow is nursing after the litters have been standardized (if possible, within 24-48 hours after birth).

NUMBER BORN ALIVE (NBA)
The number of live pigs farrowed in a litter, adjusted for parity of the sow. Daughters of sires with positive (+) EPD for NBA will farrow larger litters than average EPD females. For nonparent animals, EPDs for NBA are estimated as parental averages.

NUMBER WEANED (NW)
The number of pigs that a dam raised to 21 days of age, adjusted for parity and number after transfer. The EPD for NW is not reported, but is used in the calculation of indexes.

POSTWEANING TRAITS
Traits measured on the young pig, involving the time from weaning to 250 pounds market weight. Traits include Days to 250 pounds (Days), Backfat (BF), Pounds of Lean (Lbs.), Loin Eye Area (LEA), and Feed/Pound of Gain.

POUNDS OF LEAN (LBS.)
Pounds of fat-free lean adjusted to a 185 pound carcass or approximately a 250 pound live pig. The EPD for Pounds of Lean is calculated from the EPDs for Backfat and Loin Eye Area. A sire with a positive (+) EPD for Pounds of Lean will produce offspring that yield a higher percent of lean than offspring from a sire with a lower EPD for Pounds of Lean.

REFERENCE SIRE
A sire used in more than one herd, which serves as a basis for genetic ties between herds.

REPRODUCTIVE TRAITS

Traits measured on the sow, involving the farrowing and rearing of a litter. Traits include Number Born Alive (NBA), Number Weaned (NW), and 21-day Litter Weight (LWT).

SELECTION INDEX
A formula that combines the EPDs from several traits into a single value for each animal. STAGES weights the EPDs to calculate three indexes which consider the intended use of seedstock in crossbreeding systems and which consider the relative economic value of each trait.

SOW PRODUCTIVITY INDEX (SPI)
A bio-economic index that ranks individuals for reproductive traits. SPI weights the EPDs for Number Born Alive, Number Weaned, and 21-day Litter Weight relative to their economic values when used in a crossbreeding program.

STAGES™
Swine Testing And Genetic Evaluation System. An integrated genetic evaluation system that utilizes advanced BLUP genetic technology to evaluate seedstock. STAGES™ was initiated in 1985 as a joint venture between Purdue University, USDA, National Association of Swine Records, and National Pork Producers Council.

TERMINAL SIRE INDEX (TSI)
A bio-economic index that ranks individuals for use in a terminal crossbreeding program. TSI weights EPDs for Backfat, Days to 250 pounds, Pounds of Lean, and Feed/Pound of Gain relative to their economic values.